PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Tracey Brown
Richard Fox

Serial No.: 10/088,774

Filed: March 18, 2002

For: HYALURONAN AS A CYTOTOXIC AGENT, DRUG PRE-SENSITIZER AND CHEMO-SENSITIZER IN THE TREATMENT OF DISEASE

Group Art Unit: Unknown

Examiner: Unknown

Atty. Dkt. No.: DACO:002US

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NUMBER	EV 119099469 US
DATE OF DEPOSIT	March 13, 2003

SECOND PRELIMINARY AMENDMENT

BOX PCT
Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants respectfully submit this Second Preliminary Amendment in the above-referenced case. Consideration of this case in view of the amendments made herein is respectfully requested.

AMENDMENT

The Preliminary Amendment filed March 18, 2002 by the Applicants contained a typographical error in the priority data. An Amendment to the previously filed Preliminary Amendment is hereby requested.

On page 1 of the Specification, please delete the paragraph spanning lines 1 through 3 previously added by the Preliminary Amendment filed March 18, 2002 and replace it with the following paragraph:

--This application claims priority to PCT/AU01/00849 filed on July 13, 2001, and Australian Provisional Patent Application No. PQ 8795, filed July 14, 2000. The entire content of both these applications are incorporated by reference.--

REMARKS

The specification has been amended to delete the incorrect priority data previously added by the Preliminary Amendment filed March 18, 2002, and to recite the correct priority data. Appendix A is attached hereto containing the amendment to the specification with appropriate editing indicia.

Should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No. 50-1212/DACO:002US.

The Examiner is invited to contact the undersigned attorney with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

Reg. No. 37,255.

Steven L. Highlander
Reg. No. 37,642
Attorney for Applicants

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Date: March 13, 2003

APPENDIX

Amendment to Specification with Editing Indicia

This application claims priority to PCT/AU01/00849, filed on July 13, 2001, and Australian Provisional Patent Application No. PQ 8795, filed July 14, [20001] 2000. The entire content of both these applications are incorporated by reference.

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Group Art Unit: Unknown

Examiner: Unknown

Atty. Dkt. No.: DACO:002/SLH

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please consider the following amendments prior to examination of the above-captioned application. It is believed that no fees are occasioned by this filing; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Commissioner is authorized to deduct said fees from Fulbright & Jaworski L.L.P. Account No.: 50-1212/10202687/DACO:002/SLH. Please date stamp and return the enclosed postcard as evidence of receipt.

AMENDMENT

In the Specification

Please insert the following paragraph after line 1 of page 1:

This application claims priority to PCT/AU01/00849, filed on July 13, 2001, and Australian Provisional Patent Application No. PQ 8795, filed July 14, 20001. The entire content of both these applications are incorporated by reference.

In the Claims

Please cancel claims 1-12, without prejudice or disclaimer.

Please add the following claims:

13. (New) A method of preventing metastasis of a cellular proliferative disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of hyaluronan

14. (New) The method of claim 13, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

15. (New) The method according to claim 13, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate, kidney, skin, neural, ovary, uterus, liver, pancreas, epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

16. (New) The method according to claim 13, wherein the subject is a mammal.

17. (New) The method according to claim 16, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

18. (New) The method according to claim 13, further comprising the step of administering a chemotherapeutic agent.

19. (New) The method of claim 18, wherein the bioavailability of the chemotherapeutic agent is enhanced.

20. (New) The method according to claim 18, wherein the administration of hyaluronan is prior to or subsequent to the administration of the chemotherapeutic agent.

21. (New) The method according to claim 18, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

22. (New) The method according to claim 21, wherein the chemotherapeutic agent is fluorouracil (5-FU).

23. (New) The method according to claim 13, wherein the administration is orally, topically, or parenterally.

24. (New) The method according to claim 23, wherein parenteral administration is by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.

25. (New) A method of treating a cellular proliferative disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of a composition comprising hyaluronan and a chemotherapeutic agent.

26. (New) The method of claim 25, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

27. (New) The method according to claim 25, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate, kidney, skin, neural, ovary, uterus, liver, pancreas, epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

28. (New) The method according to claim 25, wherein the subject is a mammal.

29. (New) The method according to claim 28, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

30. (New) The method according to claim 25, wherein the bioavailability of the chemotherapeutic agent is enhanced.

31. (New) The method according to claim 25, wherein the administration of hyaluronan is prior to or subsequent to the administration of the chemotherapeutic agent.

32. (New) The method according to claim 25, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

33. (New) The method according to claim 32, wherein the chemotherapeutic agent is fluorouracil (5-FU).

34. (New) The method according to claim 25, wherein the administration is orally, topically, or parenterally.

35. (New) The method according to claim 34, wherein parenteral administration is by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.

36. (New) A method of treating a drug resistant disease in a subject in need thereof comprising the step of administering to said subject a therapeutically effective amount of hyaluronan in conjunction with a chemotherapeutic agent.

37. (New) The method of claim 36, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

38. (New) The method according to claim 36, wherein the drug resistant disease is a cellular proliferative disorder.

39. (New) The method according to claim 36, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate, kidney, skin, neural, ovary, uterus, liver, pancreas, epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

40. (New) The method according to claim 36, wherein the subject is a mammal.

41. (New) The method according to claim 40, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

42. (New) The method according to claim 36, wherein the administration of hyaluronan is prior to or subsequent to the administration of the chemotherapeutic agent.

43. (New) The method according to claim 36, wherein the bioavailability of the chemotherapeutic agent is enhanced.

44. (New) The method according to claim 36, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

45. (New) The method according to claim 44, wherein the chemotherapeutic agent is fluorouracil (5-FU).

46. (New) The method according to claim 36, wherein the administration is orally, topically, or parenterally.

47. (New) The method according to claim 46, wherein parenteral administration is either by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.

48. (New) A composition comprising a therapeutically effective amount of hyaluronan in combination with a pharmaceutical carrier, adjuvant or vehicle.

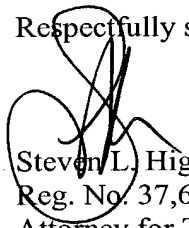
49. (New) The composition according to claim 48, further comprising a chemotherapeutic agent.

50. (New) The composition according to claim 49, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

REMARKS

Should the examiner have any questions regarding the content of this preliminary amendment, a telephone call to the undersigned is invited.

Respectfully submitted,



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Date: March 18, 2002

MARKED UP COPY OF CLAIMS

1. (Canceled) A method of treating a drug resistant disease in a subject in need thereof comprising the step of administering to said subject a therapeutically effective amount of hyaluronan in conjunction with a chemotherapeutic agent such that said chemotherapeutic agent is more effective than when administered alone.

2. (Canceled) A method of enhancing the bioavailability of a chemotherapeutic agent comprising the step of administering to a subject in need thereof a therapeutically effective amount of hyaluronan.

3. (Canceled) A method of treating or preventing multidrug resistance or drug-resistant cells comprising the step of administering a sufficient amount of hyaluronan, prior to, together with, or subsequent to the administration,of a chemotherapeutic agent.

4. (Canceled) A method according to any one of claims 1 to 3, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methoxetrate (Mexate), CPT111, etoposide, plicamycin (Mithracin) and taxanes.

5. (Canceled) A method according to claim 1, wherein the drug resistant disease is a cellular proliferative disorder.

6. (Canceled) A method according to claim 5, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate, kidney, skin, neural, ovary, uterus, liver, pancreas, 30 epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

7. (Canceled) A method according to any one of claims 1 to 6, wherein the subject is mammal.

8. (Canceled) A method according to claim 7, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

9. (Canceled) A method according to any one of claims 1 to 8, wherein the administration of hyaluronan, is prior to, together with, or subsequent to the administration of a chemotherapeutic agent.

10. (Canceled) A method according to any one of claims 1 to 9, wherein the administration of hyaluronan and/or chemotherapeutic agent is orally, topically, or parenterally.

11. (Canceled) A method according to claim 10, wherein the hyaluronan and/or chemotherapeutic agent is administered together with a pharmaceutically acceptable carrier, adjuvant, or vehicle.

12. (Canceled) A method according to claim 10 or claim 11, wherein parenteral administration is either by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.

Please add the following claims:

13. (New) A method of preventing metastasis of a cellular proliferative disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of hyaluronan

14. (New) The method of claim 13, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

15. (New) The method according to claim 13, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate,

kidney, skin, neural, ovary, uterus, liver, pancreas, epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

16. (New) The method according to claim 13, wherein the subject is a mammal.

17. (New) The method according to claim 16, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

18. (New) The method according to claim 13, further comprising the step of administering a chemotherapeutic agent.

19. (New) The method of claim 18, wherein the bioavailability of the chemotherapeutic agent is enhanced.

20. (New) The method according to claim 18, wherein the administration of hyaluronan is prior to or subsequent to the administration of the chemotherapeutic agent.

21. (New) The method according to claim 18, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

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23. (New) The method according to claim 13, wherein the administration is orally, topically, or parenterally.

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25. (New) A method of treating a cellular proliferative disease comprising the step of administering to a subject in need thereof a therapeutically effective amount of a composition comprising hyaluronan and a chemotherapeutic agent.

26. (New) The method of claim 25, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

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cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

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36. (New) A method of treating a drug resistant disease in a subject in need thereof comprising the step of administering to said subject a therapeutically effective amount of hyaluronan in conjunction with a chemotherapeutic agent.

37. (New) The method of claim 36, wherein said hyaluron is provided in combination with one or more of a pharmaceutical carrier, adjuvant or vehicle.

38. (New) The method according to claim 36, wherein the drug resistant disease is a cellular proliferative disorder.

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43. (New) The method according to claim 36, wherein the bioavailability of the chemotherapeutic agent is enhanced.

44. (New) The method according to claim 36, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.

45. (New) The method according to claim 44, wherein the chemotherapeutic agent is fluorouracil (5-FU).

46. (New) The method according to claim 36, wherein the administration is orally, topically, or parenterally.

47. (New) The method according to claim 46, wherein parenteral administration is either by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.

48. (New) A composition comprising a therapeutically effective amount of hyaluronan in combination with a pharmaceutical carrier, adjuvant or vehicle.

49. (New) The composition according to claim 48, further comprising a chemotherapeutic agent.

50. (New) The composition according to claim 49, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methotrexate (mexate), CPT111, etoposide, pliamycin (Mithracin) and taxanes.